

birch, maple, sycamore, cottonwood and sassafras.

Unlike gold and orange, the red and purple colors aren't hiding in the leaves. They're newly created in the fall

when sugars are made during warm days, then trapped in the leaves during cool nights. The trapped sugars change chemically into anthocyanins, which appear red and purple.

The more sunshine during the day, the more red color is created. That's why shaded leaves will be less red than those that get lots of sun. If the weather is cloudy and the nights stay warm, there won't be as much vivid red in such trees as maple, sweetgum, oak and dogwood.



Sweetgum

Aside from contrasting temperatures, other factors also affect fall color. Trees that don't get enough water during the growing season may just drop their leaves quickly before they color. Severe cold will kill the leaves before they have time for a fall display.

In good seasons, Missouri's fall color may change slowly from mid-September to a peak in mid-October. By late October, the colors fade and the incredible show is gone.



Hazelnut

For information on when colors peak around the state, visit mdc.mo.gov/node/4548

For information on fall festivals and events, visit www.visitmo.com





Equal opportunity to participate in and benefit from programs of the Missouri Department of Conservation is available to all individuals without regard to their race, color, nationality, sex, age or disability. Questions should be directed to the Department of Conservation, P.O. Box 180, Jefferson City, MO 65102, (573) 751-4115 (voice) or 1-800-735-2966 (TTY), or to the U.S. Fish and Wildlife Service Division of Federal Assistance, 4401 N. Fairfax Drive, Mail Stop: MBSP-4020, Arlington, VA 22203.

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Follow the Show of FALL Missouri's FALL COLORS



Find out when colors peak around the state

mdc.mo.gov/node/4548

Why Leaves Change Color

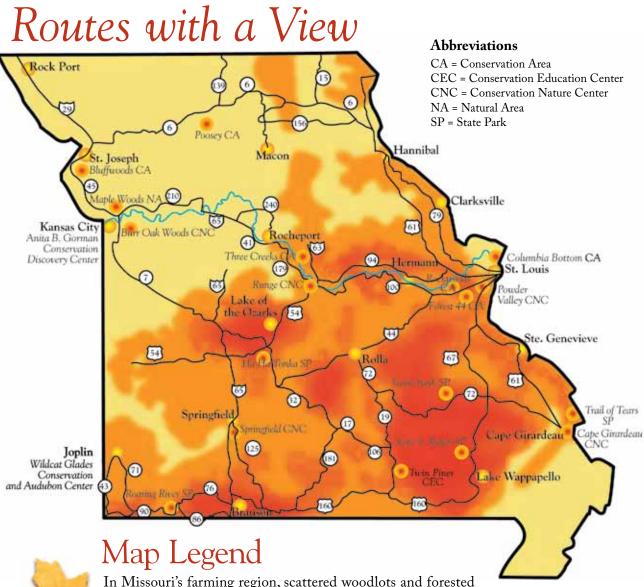


o, Jack Frost is not the culprit. Some leaves change color weeks before the first icy nights. What's really going on is a bit more complex.

Tree leaves contain cells that create food for the whole tree. Those cells use chlorophyll, which gives leaves their green color. The chlorophyll absorbs energy from the sun to turn water and carbon dioxide into sugars and starches—food for the tree.

Even though green is what you see during the growing season, there also are hidden colors in the leaves. Those are carotenoids. They're the crystalline color pigments that give yellow and orange to plants such as carrots, corn and daffodils.

In the fall, shorter days and cooler nights mean there's less energy for food-making. The chlorophyll starts to break down. The green disappears and the yellow carotenoids finally appear in such trees as hickory, ash,



In Missouri's farming region, scattered woodlots and forested stream valleys are the places to see fall colors. A variety of trees such as oak, hickory, maple, ash and cottonwood produce a dramatic mix of colors.

Rolling hills, scenic views and hardwood forests highlight this region's natural beauty. In an area that is about half forests and half farmland, it's easy to find a route to see Missouri's fall colors.

Rugged hills, bluffs, clear streams and a mix of hardwood, pine and red cedar forests are typical in this part of the state. Nearly any route you choose will be pleasing.

Autumn Strolls

Whether you want a short stroll or a long hike, you can enjoy the pleasures of fall on one of Missouri's many trails to nature.

Department of Conservation Nature Centers

Anita B. Gorman Conservation Discovery Center, Kansas City 816-759-7300

Burr Oak Woods, Blue Springs 816-228-3766 &

Cape Girardeau, Cape Girardeau 573-290-5218

Columbia Bottom, St. Louis County 314-877-6014

Powder Valley, St. Louis County 314-301-1500 &

Runge, Jefferson City 573-526-5544 &

Springfield, Springfield 417-888-4237 &

Twin Pines Conservation Education Center, Winona 573-325-1381 &

Wildcat Glades Conservation and Audubon Center, Joplin 417-782-6287

Department of Conservation Areas

mdc.mo.gov/node/8911

The Department of Conservation owns, manages or leases for public use more than 1,000 areas, many of which feature wooded trails.

Department of Natural Resources State Parks www.mostateparks.com

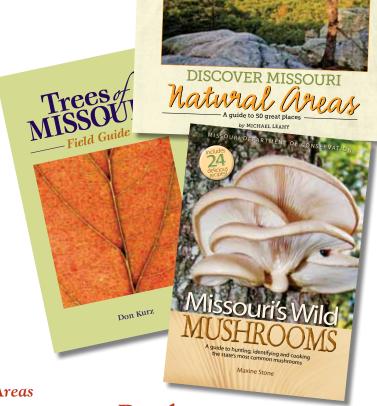
Trails: 1-800-334-6946

Eighty-four state parks and historic sites await your discovery and exploration.

Mark Twain National Forest

573-364-4621

Explore Missouri's Mark Twain National Forest. Nine parcels are scattered from the prairie lands along the Missouri River to the Ozarks.



Books

Visit www.mdcnatureshop.com or call toll-free 1-877-521-8632 to purchase these books:

MISSOURI DEPARTMENT OF CONSERVATION

- Cooking Wild in Missouri
- Discover Missouri Natural Areas
- Missouri's Wild Mushrooms
- Shrubs and Woody Vines of Missouri Field Guide
- Trees of Missouri Field Guide
- Missouri Natural Events Calendar (available in October)
- Fox in the Forest